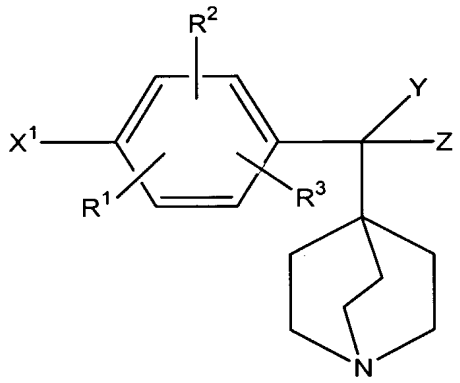
WHAT IS CLAIMED IS:

1. A method for treatment of a mammal threatened or afflicted by an infectious pathogen by administering to said mammal an effective amount of a quinuclidine compound of formula I:



wherein:

a) R^1, R^2, R^3 and R^5 are individually H, OH, halo, $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkoxy, $(C_3$-$C_6)$cycloalkyl, $(C_3$-$C_6)$cycloalkyl$((C_1$-$C_6)$alkyl), $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, $(C_1$-$C_6)$alkanoyl, halo$(C_1$-$C_6)$alkyl, hydroxy$(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkoxycarbonyl; $(C_1$-$C_6)$alkylthio or $(C_1$-$C_6)$alkanoyloxy; or R^1 and R^2 together are methylenedioxy;

b) X^1 is NO_2, CN, -N=O, $(C_1$-$C_6)$alkylC(O)NH-, oxazolinyl, or $N(R^6)(R^7)$ wherein, R^6 and R^7 are individually, H, $(C_1$-$C_6)$alkyl, $(C_2$-$C_6)$alkenyl, $(C_3$-$C_6)$cycloalkyl, $((C_1$-$C_6)$alkyl), wherein cycloalkyl optionally comprises 1-2, S, nonperoxide O or $N(R^8)$, wherein R^8 is H, O, $(C_1$-$C_6)$alkyl, $(C_3$-$C_6)$cycloalkyl, $(C_3$-$C_6)$cycloalkyl$(C_1$-$C_6)$alkyl, phenyl, or benzyl; aryl, aryl$(C_1$-$C_6)$alkyl, aryl$(C_2$-$C_6)$alkenyl, heteroaryl, heteroaryl$(C_1$-$C_6)$alkyl, or R^6 and R^7 together with the N to which they are attached form a 5- or 6-membered heterocyclic or heteroaryl ring, optionally substituted with R^1 and optionally comprising 1-2, S, non-peroxide O or $N(R^5)$;

c) Y and Z taken together are =O, $-O(CH_2)_mO-$ or $-(CH_2)_m-$ wherein m is 2-4, or Y is H and Z is OR^9 or SR^9, wherein R^9 is H or $(C_1$-$C_4)$alkyl;

and the pharmaceutically acceptable salts thereof.

2. The method of claim 1, wherein the pathogen is a bacteria or virus.

3. The method of claim 1, wherein the amount is effective to inhibit entry of the pathogen or a subunit thereof into cells of the mammal.

4. The method of claims 1-3, wherein the pathogen is a virus.

5. The method of claims 1-4, wherein the pathogen is a retrovirus.

6. The method of claims 1-5, wherein the pathogen is HIV.

7. The method of claim 3, wherein the cells are contacted *in vitro*.

8. The method of claim 3, wherein the cells are contacted *in vivo*.

9. The method of claims 1-8, wherein the compound of formula I is administered to a human.

10. The method of claim 9, wherein the human has been exposed to a virus.

11. The method of claims 9-10, wherein the human has been exposed to a retrovirus.

12. The method of claims 9-11, wherein the human is HIV-positive.

13. The method of claims 9-12, wherein the human is an AIDS patient.

14. The method of claims 1-13, wherein X^1 is $N(R^6)(R^7)$.

15. The method of claims 1-14, wherein X^1 is NH_2.

16. The method of claims 1-15, wherein 1 or 2 of R^1, R^2 or R^3 is H or (C_1-C_6)alkoxy, preferably (C_1-C_3)alkoxy.

17. The method of claims 1-16, wherein Y and Z together are =O.

18. The method of claims 1-16, wherein Y is OH and Z is H.

19. The method of claims 1-18, wherein R^1, R^2 and R^3 are H.

20. The method of claims 1-6 and 8-19, wherein the compound of formula I is administered orally.

21. The method of claims 1-6 and 8-19, wherein the compound of formula I is administered parenterally.

22. The method of claims 1-6, 8-19 and 21, wherein the compound of formula I is administered by injection, infusion, inhalation or insufflation.

23. The method of claims 1-22, wherein the compound of formula (I) is administered in combination with a pharmaceutically acceptable carrier.

24. The method of claim 23, wherein the carrier is a liquid, such as a solution, suspension or gel.

25. The method of claim 23, wherein the carrier is a solid.

26. The method of claims 22-25, wherein the carrier comprises zinc sulfate heptahydrate.

27. The method of claims 1-26, wherein the compound of formula I is [4-amino-phenyl)-(1-aza-bicyclo[2.2.2]oct-4-yl)methanone.

28. A composition comprising a compound of formula (I) and a pharmaceutically acceptable carrier.

29. The composition of claim 28, wherein the composition is in a dosage form.

30. The use of a compound of formula I to prepare a medicament for treating a mammal threatened or afflicted by an infectious pathogen.

31. The use of claim 30, wherein the infectious pathogen is a virus or bacteria.

32. The use of claim 30, wherein the medicament includes a physiologically acceptable carrier.